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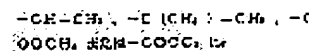
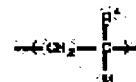
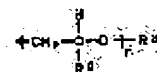
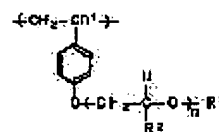
(54) MANUFACTURE OF CROSS-LINKING TYPE POLYMERIC SOLID ELECTROLYTE AND CROSS-LINKING POLYMERIC SOLID ELECTROLYTE

(57)Abstract:

PROBLEM TO BE SOLVED: To restrain swelling and dissolving with respect to a various kinds of electrolytes and obtain superior electrolyte liquid maintenance, mechanical strength, and molding property and high ion conductivity by adding a cross-linking agent to a block-graft co-polymer of specific co-polymerization degree having two kinds of block chains of a specific rate, irradiate high energy rays, and adding non-aqueous electrolyte after crosslinking.

SOLUTION: A component rate between a block chain A of, co-polymer of 10 or more in polymerization degree comprising a repetition unit of formula I and a block chain B of 300 or more in polymerization degree comprising a repetition unit of formula III is 1:30 to 30:1. This co-polymer in which polymerization degree is 310 or more is cross-linked with addition of a cross-linking agent and high-energy irradiation, after which a non-aqueous electrolyte is added.

[In formulas I and III, R1 and R4 are hydrogen, methyl group, and ethyl group; R2 is hydrogen or methyl group; R3 is alkyl group, aryl group, acyl group, silyl group, cyano-alkyl group; n is an integer of 1 to 100; and a number-average molecule weight of graphite chain expressed by formula II is 45 to 440; M is a group expressed by formula IV, phenyl group or the like].



LEGAL STATUS

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